Arizona Influenza Pandemic Response Plan Supplement 8: Community Disease Control and Prevention

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I. OVERVIEW

The initial response to the emergence of a novel influenza subtype that spreads between people will focus on containing the virus at its source, if feasible, and preventing a pandemic. Once spread beyond the initial focus occurs and with introduction of the virus into the United States, the foci of containment activities will be public health and individual measures that attempt to slow and limit viral transmission. Containment measures refer to measures that attempt to fully limit transmission as well as those that attempt to slow transmission. (Box 1) Containment strategies aimed at controlling and slowing the spread of the virus might include measures that affect individuals (e.g., isolation of patients and monitoring their contacts) as well as measures that affect groups or entire communities (e.g., cancellation of public gatherings; implementation of community-wide "Stay Home Days"). (Appendix 1) Guided by epidemiologic data, ADHS and local health agencies will implement the most appropriate of these measures in efforts to maximize impact on disease transmission and minimize impact on individual freedom of movement.

Although states and localities have primary responsibility for public health matters within their borders, including isolation and quarantine, under the authority of Section 361 of the Public Health Service Act (42 USC 264), the HHS Secretary may make and enforce regulations necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the United States or from one state or possession into another.

Containment measures applied to individuals (e.g., isolation and quarantine) may have limited impact in preventing the transmission of pandemic influenza, due to the short incubation period of the illness, the ability of persons with asymptomatic infection to transmit virus, and the possibility that early symptoms among persons infected with a novel influenza strain may be non-specific, delaying recognition and implementation of containment. Nevertheless, during the Pandemic Alert Period with a less efficiently transmitted virus, these measures may have great effectiveness, slowing disease spread and allowing time for targeted use of medical interventions. In addition, implementing these measures early in a pandemic when disease is first introduced into the U.S. and when the scope of the outbreak is focal and limited may slow geographical spread and increase time for vaccine production and implementation of other pandemic response activities.

Later, when disease transmission is occurring in communities around the U.S., individual quarantine is much less likely to have an impact and likely would not be feasible to implement. Thus, community-based containment measures (e.g., closing schools or restricting public gatherings) and emphasizing what individuals can do to reduce their risk of infection (e.g., hand hygiene and cough etiquette) may be more effective disease control tools.

II. ACTIONS FOR INTER-PANDEMIC AND PANDEMIC ALERT PERIODS

A. Community preparedness for implementation of pandemic influenza containment measures

Both individual and community-based containment measures raise legal, logistic, and social challenges that should be addressed during the Interpandemic Period. This section provides information on planning for disease control and containment, legal preparedness, planning for potential use of influenza hotlines and the role of communications in preparing the public to accept the possible need for restrictive measures to reduce the spread of pandemic influenza.

1. Planning for disease control and containment

Although individual quarantine as a control measure is likely only to be used during the Pandemic Alert and very early during the Pandemic Period—for example, among communities where initial cases are introduced into the U.S.—all state and local health departments and tribal authorities should anticipate and prepare for the challenges of effectively implementing this measure by working with community partners to review the steps involved in establishing and maintaining quarantine facilities and procedures.

Key activities include (see Appendix 2):

- Identifying and engaging traditional partners (e.g., public heath and healthcare workers) and non-traditional community partners (e.g., transportation workers) and inviting them to participate in preparedness planning and in pandemic influenza containment exercises and drills
- Identifying potential isolation and quarantine facilities
- Establishing procedures for medical evaluation and isolation of quarantined persons who exhibit signs of influenza-like illness (ILI)
- Developing tools and mechanisms to prevent stigmatization and provide mental health services to persons in isolation or quarantine, as well as to family members of affected persons and other community members
- Establishing procedures for delivering medical care, food, and services to persons in isolation or quarantine. These efforts should take into account the special needs of children and persons with disabilities.
- Developing protocols for monitoring and enforcing quarantine measures
- Ensuring legal authorities and procedures exist for various levels of movement restrictions
- Establishing procedures for issues related to employment compensation and job security

Planning checklists for businesses, individuals & families, and faith-based & community organizations are in Appendix 3.

2. Legal preparedness

ADHS, county health departments, and tribes (including Indian Health Services, as appropriate) have primary responsibility for public health matters within their borders, including isolation and

quarantine. Specific statutory authorities for the government agencies are listed below:

Isolation and Quarantine

For purposes of this response plan, "Isolation" refers to the separation of an individual with influenza from non-infected individuals. "Quarantine" refers to the separation of an individual, or individuals, exposed to influenza from non-infected and non-exposed individuals. There are three sources of authority and direction for Isolation and Quarantine in Arizona:

1. ARS § 36-624

Gives the counties the authority to conduct isolation and quarantine measures. Must be consistent with the due process requirements that are specified under ARS § 36-788 and 36-789 (see below). Some counties may have established their own procedures for isolation and quarantine under this authority, however many counties may not be prepared in this area.

2. ARS § 36-787 through 36-789

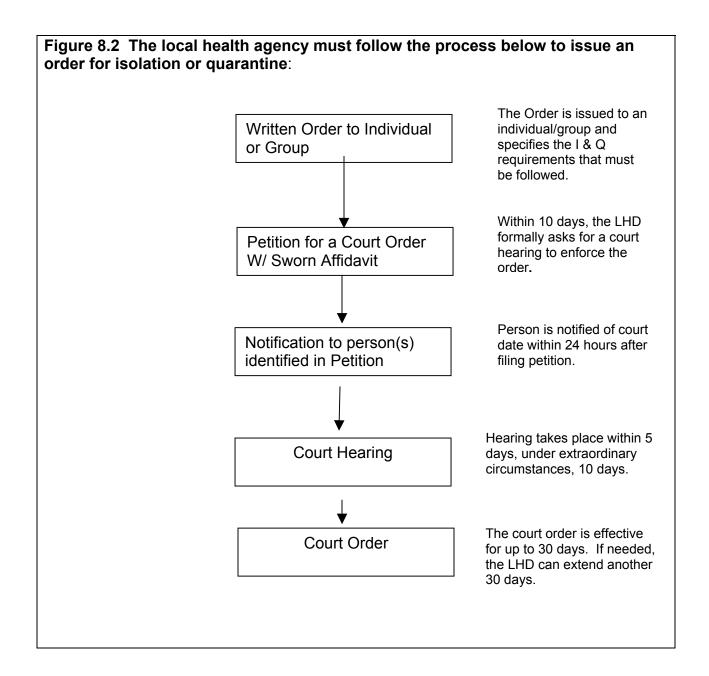
Provides isolation and quarantine authority to the state during a state of emergency or state of war emergency. Quarantine orders at the state level can only be given by the Governor, in consultation with the director of the Arizona Department of Health Services.

3. AAC R9-6-388

These rules give the local health agency a process from which to issue isolation and/or quarantine orders that are congruent with ARS § 36-624, ARS § 36-788 and ARS §36-789 (see figures 8.1 and 8.2).

Templates for documents needed to request isolation and quarantine orders are in Appendix 4.

Figure 8.1 During a Governor-declared state of war or state of emergency, the Department (ADHS) must follow the process below to issue an order for isolation or quarantine: There are forms for the State of Declared Emergency or Governor to sign and State of Declared War Emergency are under development The Directive is issued to an individual/group Department Directive to and specifies the I & Q Individual or Group requirements that must be followed. (10 Days for Department to file order) Petition for a Court Order Person is notified of court W/ Sworn Affidavit date within 24 hours after filing petition. Notification to person(s) The Department formally asks for a court hearing identified in Petition to enforce the directive. Hearing takes place **Court Hearing** within 5 days, under extraordinary circumstances, 10 days The court order is effective for up Court Order to 30 days. If needed, the Department can extend another 30 days.



3. Planning for influenza clinics and hotlines

An influenza pandemic is likely to put great stress on Arizona's healthcare delivery system, in particular emergency departments. A hospital and health care surge capacity plan has been designed to address the overwhelming demand on the health care system, especially emergency departments (see Supplement 3).

Ill persons will be encouraged to call special *influenza hotlines* that provide advice on whether to stay home or to seek medical care. ADHS and the county health departments have hotline capacities that can act as triage and information systems to support this need. These "community triage" efforts may help prevent hospitals from being overwhelmed with patients who do not

require hospital-level care. Moreover, community triage efforts may also reduce the number of uninfected persons who mingle with infected persons at clinics and hospitals. Activated influenza hotline systems will include:

- Telephone hotline numbers that people can call to report specific symptoms (e.g., fever) that will be specified by ADHS
- Protocols for hotline staff members that include training components and triage decision trees or algorithms
- Communication systems with influenza clinics or alternative treatment facilities, if they are established

4. Public understanding of disease containment measures

Community preparedness for implementation of both individual and community control measures needs to be enhanced during the Interpandemic Period by improving public understanding of the dangers of pandemic influenza and the benefits of community-wide disease control practices, including social-distancing measures that can prevent illness and death. Strategies for disease control will be facilitated by clear communication of the rationale for—and duration of—containment measures.

Public health education campaigns that involve community partners will be designed to build public confidence in the ability to cope with an influenza pandemic. Partners will include schools, faith-based organizations, community-based organizations, and local government institutions that can help educate the public and provide support to families and persons who are incapacitated by illness.

Local public health campaigns will explain how individual action (e.g., strict compliance with respiratory hygiene, staying home when ill) and community efforts (e.g., implementation of "Stay Home Days" and self-isolation, as described below) can help reduce disease transmission. Education campaigns will describe the criteria, justification, role, methodology, and duration of quarantine and the social, medical, and psychological ways in which persons will be supported during the quarantine period. They can also explain that quarantine—which temporarily restricts personal movement—is a collective action implemented for the common good. In addition, they can allay public concerns about privacy issues related to the provision of medical information to healthcare workers and public health officials. These key messages will be translated and modified as required to address the cultural and linguistic needs of local neighborhoods.

5. Enforcement and support of community containment measures

Experience from the 2003 SARS outbreak suggests that quarantine applied on a voluntary basis can be sufficient to reduce disease. Nevertheless, ADHS and the county health are prepared to enact and enforce individual and community-based containment measures, if needed.

B. Management of patients infected with novel strains of influenza and their contacts

In this document, the term "novel strains of influenza" is used to refer to avian or animal influenza strains that can infect humans (like influenza A [H5N1]) and new or reemergent human

viruses that cause cases or clusters of human disease. The choice of measures to contain the spread of novel strains of influenza during the Pandemic Alert Period will vary depending on the assessment of risk, as reflected in the three Pandemic Alert Phases described by WHO (Box 2).

1. Patient isolation

Infection control precautions and procedures for isolating influenza patients—in a residence, community facility, or hospital—are described in Supplement 4. The patient will be admitted to a hospital if clinically indicated, if public health needs require it, or if isolation at home or in a community facility cannot be achieved safely and effectively. Information for evaluating the suitability of homes and facilities for patient isolation is provided in Appendix 6.

ADHS or county health department personnel will advise the healthcare provider and healthcare facility on additional steps that may be taken, before and after laboratory test results become available, via the Arizona State Pubilc Health Laboratory or CDC.

2. Management of close contacts

In most situations—even at the earliest stages of a pandemic—it will not likely be possible to trace and quarantine close contacts of suspected or confirmed cases within 48 hours (the average incubation period for human influenza). However, in certain situations, especially during the later phases of the WHO Pandemic Alert Period (Box 2), efforts to identify exposed individuals or groups might be recommended. Examples might include:

- Suspected or confirmed cases of novel influenza. For example, a suspected or confirmed case of avian influenza A (H5N1) in persons who have traveled to an H5N1-affected country and have been exposed to sick poultry (either through handling or eating poultry products) or a laboratory-confirmed human case of H5N1 influenza
- Suspected or confirmed cases of avian influenza A (H5N1) or another novel strain of influenza in travelers on internationally-originating airplanes about to arrive in Arizona (see Supplement 9)
- Suspected or confirmed cases of avian influenza of any type in persons with known exposure to sick poultry or birds in the United States
- Clusters of avian influenza A (H5N1) or another novel strain of influenza in small, well defined settings, such as a military base
- Cases of laboratory exposure to avian influenza A (H5N1) or influenza viruses with the potential to cause a pandemic (e.g., influenza A [H2N2])

Decisions on whether to trace a patient's contacts and how to manage them will be made on a case-by-case basis by county health officers and/or ADHS officials, taking into consideration:

- Likelihood that the suspected case is due to a novel influenza strain (based on symptoms and travel history, if laboratory results are not yet available)
- Likelihood that the causative virus is transmitted from person-to-person with a moderate or high efficiency (as reflected in the designated Pandemic Alert phase)
- Feasibility of conducting contact-tracing given the short incubation period for influenza

A patient's close contacts may include family, friends, work colleagues, classmates, fellow passengers, and/or healthcare providers. Management of contacts might include passive or active monitoring without activity restrictions and/or quarantine at home or in a designated facility. In the Pandemic Alert Period, especially during Phase 3 or 4 when little or limited person-to-person transmission has been documented, quarantine of contacts should be implemented **only when there is a high probability that the ill patient is infected with a novel influenza strain that may be transmitted to others**.

A county, state, or tribal health department official will monitor contacts who are quarantined at least once a day—by phone or in person—to assess symptoms and address any needs. Frequent monitoring (e.g., twice a day) will facilitate early detection, reducing the interval between the onset of symptoms and the isolation of the sick person, but may not be feasible, depending on resource availability. Early signs of influenza include fever, respiratory symptoms, and chills, rigors, myalgia, headache, or diarrhea. Quarantine may be lifted as soon as the exposed contact has remained without signs or symptoms of disease for a complete incubation period for influenza disease. (Experience with seasonal influenza suggests the incubation period is 1-4 days, with an average length of 2 days. However, the clinical behavior of a novel influenza virus may be different and could potentially be as long as 10 days. Pandemic influenza preparedness activities should plan for containment measures that may last between 1-10 days. For the purposes of this document, 10 days is referred to as the incubation period, following the HHS planning model; however, this time frame may be adjusted as more is known about the virus.)

C. Containment of small clusters of infection with novel strains of influenza

Community-based control measures that ADHS, county, or tribal health officials might use to contain small clusters of infection with novel strains of influenza (during the later Pandemic Alert phases or when cases are first introduced into the U.S.) include targeted chemoprophylaxis and early detection of new cases by use of influenza hotlines and clinics. These approaches may be implemented in small, well-defined settings. They are not likely to be useful once a pandemic is underway.

1. Targeted chemoprophylaxis of disease clusters

This intervention includes investigation of disease clusters, administration of antiviral treatment to persons with confirmed or suspected pandemic influenza, and provision of drug prophylaxis to all likely exposed persons in the affected community. CDC will assist ADHS and county health departments in these efforts, as needed. Targeted chemoprophylaxis also requires intensive disease surveillance to ensure coverage of the entire affected area, effective communication with the affected community, and rapid distribution and administration of antivirals because they are most effective when provided within 48 hours of symptom onset or when used as post-exposure prophylaxis before onset of illness. This intervention may only be useful upon the recognition of the first cases or introduction in Arizona, especially in a closed community, such as an assisted living facility.

2. Influenza hotlines and infectious disease referral centers

During the later phases of a Pandemic Alert, in a community experiencing a disease cluster, a combination of self-assessment and establishment of influenza hotlines may be effective in

detecting potential influenza disease and conducting "community triage" to direct persons with symptoms to the appropriate site and level of care. This intervention includes asking all members of the affected community to monitor their symptoms in accordance with instructions from ADHS. For example, all members of the community might be asked to take their temperature (and the temperature of their household members) once or twice daily. Persons with temperatures above a certain level may be asked to either stay home and phone a designated influenza hotline for a medical consult, or proceed to a designated infectious disease referral center, established by regional public health and healthcare authorities (see Supplement 3).

III. ACTIONS FOR THE PANDEMIC PERIOD

During the Pandemic Period, control measures such as contact tracing and quarantine applied to individuals may have limited impact in decreasing influenza transmission. In addition, individual-level measures may no longer be feasible. During this stage, ADHS and local health departments will consider measures that decrease social contact within groups or whole communities (e.g., self-isolation, cancellation of public events, "Stay Home Days") and measures that individuals can take personally to decrease their risk of infection

Box 2 outlines measures that may be employed at different stages of a pandemic, as disease becomes more widespread. These begin with containment activities for individuals and move on, as needed, to community-based measures

A. Containment measures for individuals

1. Patient isolation

As noted above, a patient with a suspected or confirmed case of pandemic influenza need to be separated from persons who are well, using infection control measures described in Supplement 4. If a surge in patients overwhelms healthcare capacity or if home isolation is not feasible, health departments may need to use alternative facilities for isolation of influenza patients. Guidance on use of alternative facilities for isolation of influenza patients is provided in Appendix 7 and in Supplement 3.

2. Management of contacts

Contact tracing, contact monitoring, and quarantine of close contacts may be effective only in special situations during the earliest stages of a pandemic. Because the usefulness and feasibility of these measures will be limited once the pandemic has started to spread, community-based measures that reduce disease transmission by increasing social distance will likely be the primary public health intervention.

B. Community-based containment measures

If disease transmission in the community is significant and sustained, ADHS and county and tribal health authorities may implement community-based containment measures. Community-based containment measures can be grouped into two broad categories: measures that affect groups of exposed or at-risk persons and measures that affect entire communities.

Table 1 lists quantifiable factors that may influence decisions on where and when to impose

community-based containment measures. Social considerations—including levels of community cooperation and mobility—will also inform decision-making.

1. Measures that affect groups of exposed or at-risk persons

Measures that affect groups of exposed or at-risk persons include:

- Quarantine of groups of exposed persons
- Containment measures that apply to use of specific sites or buildings

These measures should be considered when:

- There is limited disease transmission in the area.
- Most cases can be traced to contact with an earlier case or exposure to a known transmission setting (e.g., a school or workplace where a person has fallen ill).
- The intervention is likely to either significantly slow the spread of infection or to decrease the overall magnitude of an outbreak in the community.

a) Quarantine of groups of exposed persons

The purpose of quarantine is to reduce influenza transmission by separating exposed persons from others, monitoring exposed persons for symptoms, and providing medical care and infection control precautions as soon as symptoms are detected. Groups that might be quarantined include:

- Persons who might have been exposed to an influenza case
 - Via family members
 - o At a public gathering
 - o On an airplane or other closed conveyance (see also Supplement 9), or
 - o At their school or workplace
- Healthcare providers who work at a facility where influenza cases receive care

Group quarantine (like patient isolation) is optimally performed on a voluntary basis, in accordance with instructions of healthcare providers and health officials. However, the Governor and the county health officer have the basic legal authority (A.R.S. 36-624, 36-787-9) to compel mandatory isolation and quarantine of individuals and groups when necessary to protect the public's health. Recommendations for quarantine and monitoring of quarantined persons in different situations (home quarantine, quarantine in a designated facility, working quarantine) are provided in Appendix 6.

b) Measures that apply to use of specific sites or buildings

Two ways of increasing social distance activity restrictions are to cancel events and close buildings or to restrict access to certain sites or buildings. These measures are sometimes called "focused measures to increase social distance." Depending on the situation, examples of cancellations and building closures might include:

- Cancellation of public events (concerts, sports events, movies, plays)
- Closure of recreational facilities (community swimming pools, youth clubs, gymnasiums) or other public or private facilities

2. Measures that affect communities

Measures that affect entire communities (including both exposed and non-exposed persons), include:

- Promotion of community-wide infection control measures (e.g., respiratory hygiene/cough etiquette)
- "Stay Home Days" and self-isolation
- Closure of office buildings, shopping malls, schools, and public transportation (e.g., buses; see Supplement 9)

Measures that affect whole communities will be considered when:

- There is moderate to extensive disease transmission in the area.
- Many cases cannot be traced to contact with an earlier case or known exposure.
- Cases are increasing among contacts of influenza patients.
- There is a significant delay between the onset of symptoms and the isolation of cases because of the large number of ill persons.

As community outbreaks of pandemic influenza occur, community-wide infection control measures may decrease the overall magnitude of the outbreak (see Box 2). Community-based measures may also include school closures, "Stay Home Days", and self-isolation.

a) Community-wide infection control measures

Throughout a pandemic, public health authorities will encourage all persons with signs and symptoms of a respiratory infection, regardless of presumed cause, to:

- Cover the nose/mouth when coughing or sneezing.
- Use tissues to contain respiratory secretions.
- Dispose of tissues in the nearest waste receptacle after use.
- Perform hand hygiene after contact with respiratory secretions and contaminated objects or materials.

Persons at high risk for complications of influenza will be advised to avoid public gatherings (e.g., movies, public meetings) when pandemic influenza is in the community. They should also avoid going to other public areas (e.g., food stores, pharmacies); the use of other persons for shopping or home delivery service is encouraged.

Disposable surgical-type masks are used by healthcare workers taking care of ill patients to prevent splashes and droplets of potentially infectious material (e.g., from coughs and sneezes) from reaching the mucous membranes of the healthcare worker's nose or mouth. The benefit of wearing masks by well persons in public settings has not been established and is not recommended as a public health control measure at this time. In contrast to healthcare workers who necessarily have close contact with ill patients, the general public should try to avoid close contact with ill individuals.

Nevertheless, persons may choose to wear a mask as part of individual protection strategies that include cough etiquette, hand hygiene, and avoiding public gatherings. Mask use may be most

important for persons who are at high risk for complications of influenza and those who are unable to avoid close contact with others or must travel for essential reasons such as seeking medical care, or attending religious services. Public education should be provided on how to use and dispose of masks appropriately. In addition, this education should emphasize that mask use is not a substitute for social distance or other personal protection measures (see also Supplement 4). Supply issues should be considered so that mask use in communities does not limit availability for healthcare settings where the importance and effectiveness of this use has been documented.

b) "Stay Home Days" and Self-isolation

Implementation of "Stay Home Days"—asking everyone to stay home—involves the entire community in a positive way, is acceptable to most people, and is relatively easy to implement (note: "Stay Home Days" is the same as "Snow Days" in HHS and other state plans, but the title was changed for obvious reasons). "Stay Home Days" may be declared at a county or state level, by the respective health officer, for an initial 10-day period, with final decisions on duration based on an epidemiologic and social assessment of the situation. Such a declaration would be an official public health recommendation, but would not be legally enforceable. States and local authorities need to consider recommendations to the public for acquisition and storage of necessary provisions including type and quantity of supplies needed during "Stay Home Days". "Stay Home Days" can effectively reduce transmission without explicit activity restrictions (i.e., quarantine). Consideration will be given to personnel who maintain primary functions in the community (e.g., law enforcement personnel, transportation workers, utility workers [electricity, water, gas, telephone, sanitation]). Compliance with "Stay Home Days" might be enhanced by "self-isolation" behavior (i.e., many people may stay home even in the absence of an official "Stay Home Days" Declaration).

c) Closure of office buildings, shopping malls, schools, and public transportation

Closure of office buildings, stores, schools, and public transportation systems may be feasible community containment measures during a pandemic. All of these have significant impact on the community and workforce, however, and careful consideration will be focused on their potential effectiveness, how they can most effectively be implemented, and how to maintain critical supplies and infrastructure while limiting community interaction. For example, when public transportation is cancelled, other modes of transportation must be provided for emergency medical services and medical evaluation.

Although data are limited, school closures may be effective in decreasing spread of influenza and reducing the overall magnitude of disease in a community. In addition, the risk of infection and illness among children is likely to be decreased, which would be particularly important if the pandemic strain causes significant morbidity and mortality among children. Children are known to be efficient transmitters of seasonal influenza and other respiratory illnesses. Anecdotal reports suggest that community influenza outbreaks may be limited by closing schools. Results of mathematical modeling also suggest a reduction of overall disease, especially when schools are closed early in the outbreak. During a Pandemic Period, parents will be encouraged to consider child care arrangements that do not result in large gatherings of children outside the school setting.

d) Widespread community quarantine (cordon sanitaire)

In extreme circumstances, state and county officials may implement widespread or community-wide quarantine, which is the most stringent and restrictive containment measure. It differs from "Stay Home Days" in two respects: 1) It may involve a legally enforceable action, and 2) it restricts travel into or out of an area circumscribed by a real or virtual "sanitary barrier" or "cordon sanitaire" except to authorized persons, such as public heath or healthcare workers. While HHS includes this containment intervention in the Federal guidance, it is not included here as a viable option, due to a lack of legal authority in Arizona to enforce such an intervention, and the low-likelihood of success of physically maintaining such a containment.

3. Scaling back community containment measures

The decision to discontinue community-level measures will balance the need to lift individual movement restrictions against community health and safety. Premature removal of containment strategies can increase the risk of additional transmission. Decisions will be based on evidence of improving local/regional control, such as:

- Consistent decrease in the number of confirmed cases
- Reduction in the number of probable and known cases
- Effective protective countermeasures are in place (e.g., high coverage with a pandemic influenza vaccine)

General recommendations are to withdraw the most stringent or disruptive measures first.

Box 1. Containment Measures: Terms and Definitions

Isolation is the separation and restriction and movement or activities of ill infected persons (patients) who have a contagious disease, for the purpose of preventing transmission to others.

Quarantine is the separation and restriction of movement or activities of persons who are not ill but who are believed to have been exposed to infection, for the purpose of preventing transmission of disease. Individuals may be quarantined at home or in designated facilities; healthcare providers and other response workers may be subject to quarantine when they are off duty. Quarantine of close contacts refers to the quarantine of individuals exposed to patients with communicable diseases (e.g., family members, work or school mates, healthcare workers). Quarantine of groups of exposed persons refers to quarantine of people who have been exposed to the same source of illness (e.g., a case of influenza at a public gathering, on an airline, train, or cruise ship, at a school or workplace or apartment complex, or at a recently visited store or office).

Widespread or community-wide quarantine refers to the closing of community borders or the erection of a real or virtual barrier around a geographic area (a cordon sanitaire) with prohibition of travel into or out of the area.

Self-isolation or Self-shielding refers to self-imposed exclusion from infected persons or those perceived to be infected (e.g., by staying home from work or school during an epidemic).

Stay Home Days or Snow days are days on which offices, schools, transportation systems are closed or cancelled, as if there were a major snowstorm.

Influenza clinics are special facilities that may be established during a pandemic to provide rapid medical assessment of potentially infected persons. Ill persons would be encouraged to call influenza hotlines that provide advice on whether to stay home or seek help at an influenza clinic. Persons who come to an influenza clinic will be advised on whether they may be best served by hospital care or home care.

Individual-level containment measures include isolation of patients and management of their close contacts.

Focused measures to increase social distance (or decrease social contact) includes measures applied to groups rather than individuals or whole communities (e.g., quarantine of groups of exposed persons and measures that apply to the use of specific sites or buildings).

Containment measures that apply to use of specific sites or buildings include cancellation of public events (e.g., concerts, sports events, movies and plays), closure of office buildings, apartment complexes, or schools; and closure of subways or bus lines. These measures may also involve restricting entrance to buildings or other sites (e.g., requiring fever screening or use of face masks before entry to schools, worksites, or airplanes).

Community-based measures to increase social distance include measures applied to whole neighborhoods, gown, or cities (e.g., "Stay Home Days", establishment of fever clinics, and community-wide quarantine.

BOX 2. GRADED IMPLEMENTATION OF COMMUNITY CONTAINMENT MEASURES

Level of influenza activity	Response
No novel influenza strains of public health concern in global circulation	Preparedness planning
Limited novel influenza virus² transmission abroad; all local cases are either imported or have clear epidemiologic links to other cases	Quarantine of close contacts
Limited novel influenza virus transmission in the area, with either a small number of cases without clear epidemiologic links to other cases or with increased occurrence of influenza among their close contacts	Quarantine of close contacts
Sustained novel influenza virus transmission in the area, with a large number of cases without clear epidemiologic links to other cases; control measures aimed at individuals and groups appear to be effective	Focused measures to increase social distance; ³ consider community-based measures
Sustained novel influenza activity in the area, with a large number of cases in persons without an identifiable epidemiologic link at the time of initial evaluation; control measures are believed to be ineffective	Community-level measures to increase social distance; consider snow days and community-wide quarantine
Decreases in the number of new cases, unlinked (or "unexpected") cases, and generations of transmission	Quarantine of contacts
Transmission has been controlled or eliminated; no new cases reported	Active monitoring in high-risk populations; continue for 2-3 incubation periods after control or elimination of transmission.
² "Novel influenza viruses" include avian or animal influenza strains that ca or reemergent human viruses that cause cases or clusters of human disease	
³ "Focused measures to increase social distance" include measures applied (e.g., quarantine of groups of exposed persons and measures that apply to t	

TABLE 1. THRESHOLD DETERMINANTS FOR THE USE OF COMMUNITY CONTAINMENT MEASURES

Data on cases and contacts—as well as on depletion of healthcare and public health resources over the course of a pandemic—can help state and local health authorities decide when to implement community-level containment measures. As part of preparedness planning, state and local health agencies and healthcare partners may estimate at what point in the pandemic—in terms of such variables as numbers of cases and numbers of unoccupied hospital beds—that more extensive measures may be imposed. During an actual pandemic, state and local departments may also evaluate social considerations, such as levels of community cooperation and mobility.

Potential parameters	Variable
Cases and contacts	Number of cases (absolute or estimated) Rate of incident cases Number of hospitalized cases Number and percentage of cases with no identified epidemiologic link Morbidity (including disease severity) and mortality Number of contacts under surveillance and/or quarantine
Healthcare resources	Hospital/facility bed capacity Staff resources Patient/staff ratio Number of ill or absent staff members Availability of specifically trained specialists and ancillary staff members Availability of ventilators Availability of other respiratory equipment Availability of personal protective equipment and other measures Availability of therapeutic medications (influenza and non-influenza specific)
Public health resources	Investigator to case and contact ratios Number of contacts under active surveillance Number of contacts under quarantine Ability to rapidly trace contacts (number of untraced/interviewed contacts) Ability to implement and monitor quarantine (staff member to contact ratio) Ability to provide essential services (food, water, etc.)
Community cooperation, mobility, and compliance	Degree of compliance with voluntary individual isolation Degree of compliance with active surveillance and voluntary individual quarantine Degree of movement out of the community Degree of compliance with community-containment measures

APPENDIX 1. INTERVENTIONS FOR COMMUNITY CONTAINMENT

Contacts of pandemic influenza patients can be managed by use of a range of interventions, all of which are designed to facilitate early recognition of illness in persons at greatest risk of becoming infected and thereby prevent transmission to others. Whereas many of these interventions are applied individually to persons identified as contacts of a person with possible or known influenza disease, others are applied to larger groups of persons, or communities, that share a similar risk of exposure. Measures applied to individuals may not be feasible during the Pandemic Period, when quarantining individuals and tracing close contacts may not be possible. The range of interventions includes the following:

Passive Monitoring

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• The contact is asked to perform self-assessment at least twice daily and to contact authorities immediately if respiratory symptoms and/or fever occur.

Application

• Situations in which 1) the risk of exposure and subsequent development of disease is low, and 2) the risk to others if recognition of disease is delayed is also low

Benefits

- Requires minimal resources
- Places few constraints on individual movement

Challenges

- Relies on self-reporting
- Affected persons may not perform an adequate self-assessment

Resources Required

- Supplies (thermometer; symptom log; written instructions)
- Hotline to notify authorities about symptoms or needs
- Staff to receive telephone reports and provide in-person evaluation and
- Plans and procedures for rapid isolation of persons who develop symptoms

Partners

Household members

Forms/Templates

Symptom logs

Under development

Instructions for patients and healthcare workers

Active Monitoring without Explicit Activity Restrictions

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• A healthcare or public health worker evaluates the contact on a regular (at least daily) basis by phone and/or in person for signs and symptoms suggestive of influenza

Application

• Situations in which 1) the risk of exposure to and subsequent development of disease is moderate to high, 2) resources permit close observation of individuals, and 3) the risk of delayed recognition of symptoms is low to moderate

Benefits

• Places few constraints on individual liberties

Challenges

 Requires adequate staffing to track information and to verify monitoring and appropriate actions based on findings

Resources Required

 Trained staff to provide in-person and/or telephone evaluations Plans and procedures for rapid isolation of persons who develop symptoms Contingency plans for managing noncompliant persons Hotline to notify authorities about symptoms or needs

Partners

- Professional and lay healthcare workers to perform evaluations on behalf of the health department
- Possible need for law enforcement to assist with management of noncompliant persons

Forms/ Templates

Checklist for assessment of active monitoring

Under development

• Template for recording results of clinical evaluation

Working Quarantine

Definition Employees are permitted to work but must observe activity

restrictions while off duty. Monitoring for influenza-like illness is

usually required. This may change based on the clinical

presentation of the pandemic strain. Use of appropriate PPE while

at work is required.

Application Persons for whom activity restrictions (home or facility

quarantine) are indicated but who provide essential

services (e.g., healthcare workers.

Benefits Reduces risk of community spread from high-risk contacts while

minimizing adverse impact of activity restrictions on provision of

essential services.

Clinical monitoring at work reduces the staff required for active

monitoring at the quarantine site.

Challenges Need for close and consistent pre-shift monitoring at the work site

to prevent inadvertent exposures

May require means of transporting persons to and from work site to minimize interactions; persons in working quarantine should

wear appropriate PPE during transport.

Must maintain close cooperation and communication between work

site and local health authorities

Need to provide mental health services to address concerns about

isolation from family and friends

Resources Appropriate facility for off-duty quarantine if home is

Required unavailable or inadequate

Staff, funding, and goods for provision of essential services

Personal protective equipment

Hotline for notification of symptoms and personal needs

System to track results of work-site monitoring and

location(s) of off-duty quarantine

Mental health, psychological, and behavioral support

services, especially if work includes care of influenza

patients

Partners Work-site administrators and infection control personnel

Community volunteers/workers

Staff/volunteers to assist with transportation to and from

work

Mental health professionals

Potential need for law enforcement to assist with

noncompliant person

Forms/ Templates

Under

Development Guidelines and instructions for persons in working quarantine

Instructions for supervisors of persons in working quarantine

Checklist to evaluate homes for quarantine Guidelines for monitoring compliance

Checklist for active monitoring at work site

Template for recording results of clinical evaluation

Forms for recording compliance

Active Monitoring with Activity Restrictions (Quarantine)

Definition

The contact remains separated from others for a specified period (up to 10 days after potential exposure), during which s/he is assessed on a regular basis (in person at least once daily) for signs and symptoms of influenza disease. Persons with fever, respiratory, or other early influenza symptoms require immediate evaluation by a trained healthcare provider. Restrictions may be voluntary or legally mandated; confinement may be at home or in an appropriate facility.

No specific precautions are required for those sharing the household with a person in quarantine as long as the person remains asymptomatic. Because onset of symptoms may be insidious, it may be prudent to minimize interactions with household members during the period of quarantine, if

feasible

Application Situations in which the risk of exposure and subsequent development of

disease is high and the risk of delayed recognition of symptoms is

moderate

Benefits Reduces risk of spread from persons with subacute or subclinical

presentations or from delayed recognition of symptoms

Challenges May infringe on personal movement

May lead to a feeling of isolation from family and friends

May lead to loss of income or employment

Requires plans/protocols for provision of essential services

Requires plan for provision of mental health support Risk of noncompliance, particularly as duration increases

May require enforcement for noncompliance

Resources Required Staff for monitoring and evaluation

Appropriate facility if home setting is unavailable or inadequate Staff, funding, and goods for provision of essential services Hotline for notification of symptoms or personal needs

Mechanisms to communicate with family members outside the household

or facility

Mental health and social support services

Delivery systems for food and other essential supplies

Partners Professional and lay healthcare workers to perform assessments on behalf

of the health department

Community volunteers/workers to assist with provision of essential services Potential need for law enforcement to assist with noncompliant persons

Forms/Templates Under development

Focused Measures to Increase Social Distance

Definition Intervention applied to specific groups, designed to reduce interactions and

thereby transmission risk within the group. When focused, the intervention is applied to groups or persons identified in specific sites or buildings, most but not necessarily all of whom are at risk of exposure to influenza.

Examples Quarantine of groups of exposed persons Cancellation of public events

Closure of office buildings, schools, and/or shopping malls; closure of

public transportation such as subways or bus lines

Application Groups or settings where transmission is believed to have occurred, where

the linkages between cases is unclear at the time of evaluation, and where

restrictions placed only on persons known to have been exposed is

considered insufficient to prevent further transmission

Benefits Applied broadly, reduces the requirement for urgent evaluation of large

numbers of potential contacts to determine indications for activity

restrictions May enable reductions in transmission among groups of persons

without explicit activity restrictions (quarantine)

Challenges May be difficult to solicit cooperation, particularly if popular buildings are

closed or popular events are cancelled

Requires excellent communication mechanisms to notify affected persons

of details and rationale

May need to provide replacement for affected activities

Generally relies on passive monitoring

Resources Required Systems to communicate relevant messages

May require enforcement, particularly if closure of buildings or gathering

places is necessary

Requires resources for passive monitoring

Hotlines to report symptoms and obtain follow-up instructions

Transportation for medical evaluation, with appropriate infection control

precautions

Partners News media and communication outlets

Law enforcement Community groups

Forms/Templates Messages for affected persons

Under development Messages for employers of affected persons

Messages for persons supplying essential services

Community-Wide Measures to Increase Social Distance

Definition

Intervention applied to an entire community or region, designed to reduce personal interactions and thereby transmission risk. The prototypical example is implementation of a "Stay Home Days" or "snow days" declaration, in which offices, schools, and transportation systems are cancelled as for a major snowstorm.

Application

All members of a community in which 1) extensive transmission of influenza is occurring, 2) a significant number of cases lack clearly identifiable epidemiologic links at the time of evaluation, and 3) restrictions on persons known to have been exposed are considered insufficient to prevent further spread.

Benefits

Reduces need for urgent evaluation of large numbers of potential contacts to determine indications for activity restrictions.

May enable reductions in transmission among groups without explicit activity restrictions

(quarantine)

"Snow days" may be familiar concepts and thus maybe easy to implement on short notice

Challenges

May be difficult to solicit cooperation

Requires excellent communication mechanisms to notify affected persons of details and rationale

May need to provide replacement for affected activities

May need to address mental health and financial support issues

When an entire community is involved, requires cooperation with neighboring jurisdictions that

may not be using a similar intervention, particularly in situations where persons

live in one city

and work in another and only one locale is affected by the intervention

Generally relies on passive monitoring

Social and economic impact of public transportation closures

Resources Required

Communication outlets

Enforcement

Resources for passive monitoring

Hotlines and other communication systems to report symptoms and obtain

follow-up instructions

Partners News media and other communication outlets

Law enforcement and transportation officials to enforce restrictions (e.g.,

closure of bridges, roads,

or mass transit systems) and plan for provision of critical supplies and

infrastructure

Forms/Templates Messages for affected persons

Under Messages for employers of affected persons

development Messages for persons supplying essential services

APPENDIX 2. PREPAREDNESS CHECKLIST FOR COMMUNITY CONTAINMENT MEASURES

General

☐ Establish an incident command structure that can be used for influenza response.
☐ Establish a legal preparedness plan.
☐ Establish relationships with partners, such as law enforcement, first responders, healthcare facilities, mental health professionals, local businesses, and the legal community.
□ Plan to monitor and assess factors that will determine the types and levels of response,
including the epidemiologic profile of the outbreak, available local resources, and level of public acceptance and participation.
□ Develop communication strategies for the public, government decision-makers, healthcare and emergency response workers, mental health professionals, and the law enforcement community. □ Invite key partners to participate in pandemic influenza containment exercises and drills.
Management of cases and contacts (including quarantine)
□ Develop protocols, tools, and databases for:
• Case surveillance
Clinical evaluation and management
Contact tracing, monitoring, and management
• Reporting criteria
Develop standards and tools for home and non-hospital isolation and quarantine.
☐ Establish supplies for non-hospital management of cases and contacts.
□ Establish a telecommunications plan for "hotlines" or other services for:
• Case and contact monitoring and response
• Fever triage
• Public information
Provider information
☐ Plan to ensure provision of essential services and supplies to persons in isolation and
quarantine, keeping in mind the special needs of children. Services and supplies include:
• Food and water
• Shelter
 Medicines and medical consultations
 Mental health and psychological support services
• Other supportive services (e.g., day care or elder care)
 Transportation to medical treatment, if required
□ Plan to address issues of financial support, job security, and prevention of stigmatization.
☐ Establish procedures for medical evaluation and isolation of quarantined persons who exhibit
signs of illness.
Develop protocols for monitoring and enforcing quarantine measures, such as:

Protocols for follow-up of persons who cannot be reached by telephone.

These may include a threshold period for nonresponsiveness that should trigger a home visit or other means to locate the person. Partnerships with law enforcement and other community-based resources will be helpful in tracing the whereabouts of persons who have violated restrictions.

☐ Protocols for monitoring persons who cannot or will not comply with voluntary home quarantine. These may include:

- Issuing official, legally binding quarantine orders
- Posting a guard outside the home
- Using electronic forms of monitoring
- Using guarded facilities
- Protocols for using checkpoints to restrict travel between neighborhoods.

Temporary emergency facilities for patient isolation, quarantine, and assessment of
patients with fever (see Appendix 7 for a list of facility characteristics)
☐ Identify appropriate community-based facilities for isolation of patients who have no
substantial healthcare requirements.
Develop policies related to use of these facilities.

☐ Identify facilities for persons for whom home isolation is indicated but who do not have a	ccess
to an appropriate home setting, such as travelers and homeless populations.	

☐ Ensure that required procedures	for assessment of potenti	ial isolation or quaranti	ne sites are
available and up to date.			

☐ Identify potential	quarantine	facilities	and]	prepare	contingen	cy plans	for	staffing	and
equipping them.									

☐ Identify potential sites for fever clinics and prepare contingency plans for staffing and
equipping them, including the ability to dispense antiviral drugs to identified cases in the priority
groups.

Community con	ntainment measures
•	gal authorities and procedures are in place to implement the various levels of ctions as necessary.
exhibit signs of	cedures for medical evaluation and isolation of quarantined persons who illness. (Additional information on medical evaluation is provided in
Supplement 5.)	and machanisms to prevent stigmatization and provide mental health
-	and mechanisms to prevent stigmatization and provide mental health ons in isolation or quarantine.
	artners and personnel for the implementation of movement restrictions,
J J 1	atthers and personner for the implementation of movement restrictions, itine, and the provision of essential services and supplies:
U 1	aw enforcement
	irst responders
	other government service workers
	tilities
	ransportation industry
	ocal businesses
• Se	chools and school boards
include: ☐ Training for reequipment	Examples of services that will require the help of non-traditional partners esponders and healthcare workers, as necessary, in use of personal protective nobilization and deployment of public health and other community-service
General	
☐Establish a leg	ncident command structure that can be used for influenza response.
	ionships with partners, such as law enforcement, first responders, healthcare health professionals, and the legal community.
	or and assess factors that will determine the types and levels of response, demiologic profile of the outbreak, available local resources, and level of public participation.
emergency respo	nunication strategies for the public government decision-makers, healthcare and onse workers, mental health professionals, and the law enforcement community. should consider privacy concerns.
☐ Invite key part	tners to participate in pandemic influenza containment exercises and drills.
Management of	cases and contacts (including quarantine)

- Case surveillance
- Clinical evaluation and management

account security and privacy concerns. These may include protocols for:

□ Develop protocols, tools, and databases for management of cases and contacts, considering

- Contact tracing, monitoring, and management
- Reporting criteria
- ☐ Develop standards and tools for home and non-hospital isolation and quarantine.
- ☐ Establish supplies for non-hospital management of cases and contacts.
- ☐ Establish a telecommunications plan for "hotlines" or other services for case and contact monitoring and response
 - Fever triage
 - Public information
 - Provider information
- ☐ Plan to ensure provision of essential services and supplies to persons in isolation and quarantine, including:
 - Food and water
 - Shelter
 - Medicines and medical consultations
 - Mental health and psychological support services
 - Other supportive services (e.g., day care or elder care).
 - Transportation to medical treatment, if required
- □ Plan to address issues of financial support, job security, privacy concerns and prevention of stigmatization.

APPENDIX 3. Planning Checklists (http://pandemicflu.gov/plan/checklists.html)

3.1 Business

http://pandemicflu.gov/plan/pdf/businesschecklist.pdf

3.2 Individuals and Families

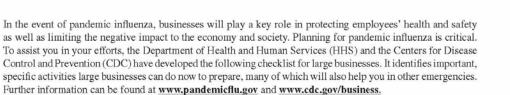
http://pandemicflu.gov/plan/pdf/individuals.pdf

3.3 Faith-Based and Community Organizations

http://pandemicflu.gov/plan/pdf/faithbasedcommunitychecklist.pdf

Appendix 3.1 Business Checklist

BUSINESS PANDEMIC INFLUENZA PLANNING CHECKLIST





1.1 Plan for the impact of a pandemic on your business:						
Completed	In Progress	Not Started				
			Identify a pandemic coordinator and/or team with defined roles and responsibilities for preparedness and response planning. The planning process should include input from labor representatives.			
			Identify essential employees and other critical inputs (e.g. raw materials, suppliers, sub-contractor services/products, and logistics) required to maintain business operations by location and function during a pandemic.			
			Train and prepare ancillary workforce (e.g. contractors, employees in other job titles/descriptions, retirees).			
			Develop and plan for scenarios likely to result in an increase or decrease in demand for your products and/or services during a pandemic (e.g. effect of restriction on mass gatherings, need for hygiene supplies).			
			Determine potential impact of a pandemic on company business financials using multiple possible scenarios that affect different product lines and/or production sites.			
			Determine potential impact of a pandemic on business-related domestic and international travel (e.g. quarantines, border closures).			
			Find up-to-date, reliable pandemic information from community public health, emergency management, and other sources and make sustainable links.			
			Establish an emergency communications plan and revise periodically. This plan includes identification of key contacts (with back-ups), chain of communications (including suppliers and customers), and processes for tracking and communicating business and employee status.			
			Implement an exercise/drill to test your plan, and revise periodically.			
1.2 Pla	n for the	impact o	f a pandemic on your employees and customers:			
Completed	In Progress	Not Started				
			Forecast and allow for employee absences during a pandemic due to factors such as personal illness, family member illness, community containment measures and quarantines, school and/or business closures, and public transportation closures.			
			Implement guidelines to modify the frequency and type of face-to-face contact (e.g. hand-shaking, seating in meetings, office layout, shared workstations) among employees and between employees and customers (refer to CDC recommendations).			
			Encourage and track annual influenza vaccination for employees.			
			Evaluate employee access to and availability of healthcare services during a pandemic, and improve services as needed.			
			Evaluate employee access to and availability of mental health and social services during a pandemic, including corporate, community, and faith-based resources, and improve services as needed.			
			Identify employees and key customers with special needs, and incorporate the requirements of such persons into your preparedness plan.			



1.3 Establish policies to be implemented during a pandemic:							
Completed	In Progress	Not Started					
			Establish policies for employee compensation and sick-leave absences unique to a pandemic (e.g. non-punitive, liberal leave), including policies on when a previously ill person is no longer infectious and can return to work after illness.				
			Establish policies for flexible worksite (e.g. telecommuting) and flexible work hours (e.g. staggered shifts).				
			Establish policies for preventing influenza spread at the worksite (e.g. promoting respiratory hygiene/cough etiquette, and prompt exclusion of people with influenza symptoms).				
			Establish policies for employees who have been exposed to pandemic influenza, are suspected to be ill, or become ill at the worksite (e.g. infection control response, immediate mandatory sick leave).				
			Establish policies for restricting travel to affected geographic areas (consider both domestic and international sites), evacuating employees working in or near an affected area when an outbreak begins, and guidance for employees returning from affected areas (refer to CDC travel recommendations).				
			Set up authorities, triggers, and procedures for activating and terminating the company's response plan, altering business operations (e.g. shutting down operations in affected areas), and transferring business knowledge to key employees.				
1.4 All	ocate res	ources to	protect your employees and customers during a pandemic:				
Completed		Not Started	Protection of the same state o				
			Provide sufficient and accessible infection control supplies (e.g.hand-hygiene products, tissues and				
	-	-	receptacles for their disposal) in all business locations.				
			Enhance communications and information technology infrastructures as needed to support employee telecommuting and remote customer access.				
			Ensure availability of medical consultation and advice for emergency response.				
1.5 Co	mmunica	te to and	educate your employees:				
		Not Started	an months v than the Konv than				
	ů		Develop and disseminate programs and materials covering pandemic fundamentals (e.g. signs and symptoms of influenza, modes of transmission), personal and family protection and response strategies (e.g. hand hygiene, coughing/sneezing etiquette, contingency plans).				
			Anticipate employee fear and anxiety, rumors and misinformation and plan communications accordingly.				
			Ensure that communications are culturally and linguistically appropriate.				
			Disseminate information to employees about your pandemic preparedness and response plan.				
			Provide information for the at-home care of ill employees and family members.				
□	▤		Develop platforms (e.g. hotlines, dedicated websites) for communicating pandemic status and actions to employees, vendors, suppliers, and customers inside and outside the worksite in a consistent and timely way, including redundancies in the emergency contact system.				
			Identify community sources for timely and accurate pandemic information (domestic and international) and resources for obtaining counter-measures (e.g. vaccines and antivirals).				
1.6 Co	ordinate	with exte	rnal organizations and help your community:				
Completed	In Progress	Not Started					
			Collaborate with insurers, health plans, and major local healthcare facilities to share your pandemic plans and understand their capabilities and plans.				
			Collaborate with federal, state, and local public health agencies and/or emergency responders to participate in their planning processes, share your pandemic plans, and understand their capabilities and plans.				
			Communicate with local and/or state public health agencies and/or emergency responders about the assets and/or services your business could contribute to the community.				
			Share best practices with other businesses in your communities, chambers of commerce, and associations to improve community response efforts.				

Appendix 3.2 Individuals and Families Checklist

Pandemic Flu Planning Checklist for Individuals and Families

You can prepare for an influenza pandemic now. You should know both the magnitude of what can happen during a pandemic outbreak and what actions you can take to help lessen the impact of an influenza pandemic on you and your family. This checklist will help you gather the information and resources you may need in case of a flu pandemic.

1. To plan for a pandemic:

Store a supply of water and food. During a pandemic, if you cannot get to a store, or if stores are out of supplies, it will be important for you to have extra supplies on hand. This can be useful in other types of emergencies, such as power outages and disasters.
Ask your doctor and insurance company if you can get an extra supply of your regular prescription drugs.
Have any nonprescription drugs and other health supplies on hand, including pain relievers, stomach remedies, cough and cold medicines, fluids with electrolytes, and vitamins.
Talk with family members and loved ones about how they would be cared for if they got sick, or what will be needed to care for them in your home.
Volunteer with local groups to prepare and assist with emergency response.
Get involved in your community as it works to prepare for an influenza pandemic.

2. To limit the spread of germs and prevent infection:

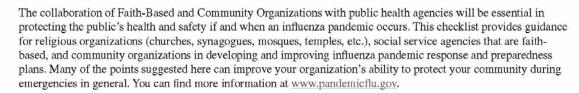
- ☐ Teach your children to wash hands frequently with soap and water, and model the correct behavior.
- ☐ Teach your children to cover coughs and sneezes with tissues, and be sure to model that behavior.
- ☐ Teach your children to stay away from others as much as possible if they are sick. Stay home from work and school if sick.



3. Items to have on hand for an extended stay at home during an influenza pandemic: **Examples of food and non-perishables** Ready-to-eat canned meats, fruits, and vegetables 5 days of broth-based soups Protein or fruit bars Dry cereal or granola Peanut butter or nuts Dried fruit Crackers Canned juices Bottled water Canned or jarred baby food and formula Pet food Examples of medical, health, and emergency supplies Prescribed medical supplies such as glucose and blood-pressure monitoring equipment Soap and water 60 % alcohol-based hand sanitizer Medicines for fever, such as acetaminophen or ibuprofen Over the counter flu medicines Thermometer 70% Isopropyl alcohol for disinfecting thermometer Anti-diarrheal medication Throat lozenges Vitamins Fluids with electrolytes Flashlight **Batteries** Portable radio Manual can opener Garbage bags Tissues, toilet paper, disposable diapers Disinfectant

Appendix 3.3 Faith-Based & Community Organizations Checklist

FAITH-BASED & COMMUNITY ORGANIZATIONS PANDEMIC INFLUENZA PREPAREDNESS CHECKLIST





1. Plan for the impact of a pandemic on your organization and its mission:					
Completed	In Progress	Not Started			
			Assign key staff with the authority to develop, maintain and act upon an influenza pandemic preparedness and response plan.		
			Determine the potential impact of a pandemic on your organization's usual activities and services. Plan for situations likely to require increasing, decreasing or altering the services your organization delivers.		
			Determine the potential impact of a pandemic on outside resources that your organization depends on to deliver its services (e.g., supplies, travel, etc.)		
			Outline what the organizational structure will be during an emergency and revise periodically. The outline should identify key contacts with multiple back-ups, role and responsibilities, and who is supposed to report to whom.		
			Identify and train essential staff (including full-time, part-time and unpaid or volunteer staff) needed to carry on your organization's work during a pandemic. Include back up plans, cross-train staff in other jobs so that if staff are sick, others are ready to come in to carry on the work.		
			Test your response and preparedness plan using an exercise or drill, and review and revise your plan as needed.		
2. Commu		h and edu	cate your staff, members, and persons in the communities that you serve:		
Completed	In Progress	Not Started			
			Find up-to-date, reliable pandemic information and other public health advisories from state and local health departments, emergency management agencies, and CDC. Make this information available to your organization and others.		
			Distribute materials with basic information about pandemic influenza: signs and symptoms, how it is spread, ways to protect yourself and your family (e.g., respiratory hygiene and cough etiquette), family preparedness plans, and how to care for ill persons at home.		
			When appropriate, include basic information about pandemic influenza in public meetings (e.g. sermons, classes, trainings, small group meetings and announcements).		
			Share information about your pandemic preparedness and response plan with staff, members, and persons in the communities that you serve.		
			Develop tools to communicate information about pandemic status and your organization's actions. This might include websites, flyers, local newspaper announcements, pre-recorded widely distributed phone messages, etc.		
			Consider your organization's unique contribution to addressing rumors, misinformation, fear and anxiety.		
			Advise staff, members, and persons in the communities you serve to follow information provided by public health authoritiesstate and local health departments, emergency management agencies, and CDC.		
			Ensure that what you communicate is appropriate for the cultures, languages and reading levels of your staff, members, and persons in the communities that you serve.		
			continued		



3. Plan for the impact of a pandemic on your staff, members, and the communities that you serve:						
Completed	In Progress	Not Started				
			Plan for staff absences during a pandemic due to personal and/or family illnesses, quarantines, and school, business, and public transportation closures. Staff may include full-time, part-time and volunteer personnel.			
			Work with local health authorities to encourage yearly influenza vaccination for staff, members, and persons in the communities that you serve.			
			Evaluate access to mental health and social services during a pandemic for your staff, members, and persons in the communities that you serve; improve access to these services as needed.			
			Identify persons with special needs (e.g. elderly, disabled, limited English speakers) and be sure to include their needs in your response and preparedness plan. Establish relationships with them in advance so they will expect and trust your presence during a crisis.			
4. Set up policies to follow during a pandemic:						
Completed	In Progress	Not Started				
			Set up policies for non-penalized staff leave for personal illness or care for sick family members during a pandemic.			
			Set up mandatory sick-leave policies for staff suspected to be ill, or who become ill at the worksite. Employees should remain at home until their symptoms resolve and they are physically ready to return to duty (Know how to check up-to-date CDC recommendations).			
			Set up policies for flexible work hours and working from home.			
ă	ā		Evaluate your organization's usual activities and services (including rites and religious practices if applicable) to identify those that may facilitate virus spread from person to person. Set up policies to modify these activities to prevent the spread of pandemic influenza (e.g. guidance for respiratory hygiene and cough etiquette, and instructions for persons with influenza symptoms to stay home rather than visit in person.)			
			Follow CDC travel recommendations during an influenza pandemic. Recommendations may include restricting travel to affected domestic and international sites, recalling non-essential staff working in or near an affected site when an outbreak begins, and distributing health information to persons who are returning from affected areas.			
			Set procedures for activating your organization's response plan when an influenza pandemic is declared by public health authorities and altering your organization's operations accordingly.			
5. Allocate	resources t	o protect yo	our staff, members, and persons in the communities that you serve during a pandemic:			
Completed	In Progress	Not Started				
			Determine the amount of supplies needed to promote respiratory hygiene and cough etiquette and how they will be obtained.			
			Consider focusing your organization's efforts during a pandemic to providing services that are most needed during the emergency (e.g. mental/spiritual health or social services).			
6. Coordi	nate with e	external or	ganizations and help your community:			
Completed	In Progress	Not Started				
			Understand the roles of federal, state, and local public health agencies and emergency responders and what to expect and what not to expect from each in the event of a pandemic.			
			Work with local and/or state public health agencies, emergency responders, local healthcare facilities and insurers to understand their plans and what they can provide, share about your preparedness and response plan and what your organization is able to contribute, and take part in their planning. Assign a point of contact to maximize communication between your organization and your state and local public health systems.			
			Coordinate with emergency responders and local healthcare facilities to improve availability of medical advice and timely/urgent healthcare services and treatment for your staff, members, and persons in the communities that you serve.			
			Share what you've learned from developing your preparedness and response plan with other Faith-Based and Community Organizations to improve community response efforts.			
			Work together with other Faith-Based and Community Organizations in your local area and through networks (e.g. denominations, associations, etc) to help your communities prepare for pandemic influenza.			

APPENDIX 4.

Legal Preparedness: Isolation and Quarantine Templates

- 4.1 Quarantine Directive for Public Health Emergencies: A.R.S. § 36-788 and 789
- 4.2 Isolation Directive for Public Health Emergencies: A.R.S. § 36-788 and 789
- 4.3 Petition for Compulsory Isolation or Quarantine: A.R.S. § 36-789 (B)
- 4.4 Affidavit in Support of Compulsory Isolation or Quarantine: A.R.S. § 36-789 (C)
- 4.5 Order for Isolation or Quarantine: A.R.S. § 36-789 (B), (F), (G)
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Appendix 4.1 Quarantine Directive for Public Health Emergencies A.R.S. § 36-788 and 789

QUARANTINE DIRECTIVE FOR PUBLIC HEALTH EMERGENCIES (INDIVIDUAL OR MULTIPLE PERSONS/GROUPS)

To: Address:	
The Governor of the State of Arizona has declared a State of Emergency or State of War Emergency includes an occurrence or imminent threat of smallpox, plague, viral hemorrhagic fevers or a highly contagious and highly fatal disease with transmission characteristics similar to small pox.	that
The Arizona Department of Health Services ("the Department") has reason to suspect that you have come is contact with a person who has one of the designated diseases and you may have or develop this disease. Specifically, you are suspected of having come into contact with a person who has were to have this disease you would pose a substantial threat to the health of other persons. Because any dimplementing your quarantine will pose an immediate and serious threat to the public health, the Department, in order to prevent transmission of this contagious disease, directs you to be placed in quarantine in accordance with A.R.S. § 36-789(A). The time and location of the premises for your quarantine:	If you lelay in
Time:	
Location:	
The Department considers this the least restrictive clinically appropriate place of quarantine given the nature the disease with which you may have come into contact. Within ten days after issuing this Directive, the Department shall file a petition for a court order authorizing the continued quarantine of the person or personamed in this Directive. A court hearing will be set following the filing of the petition.	
During this period you may be required to undergo a medical exam and may be ordered to receive medical treatment and/or vaccination. A person subject to quarantine shall comply with the Department's rules and orders, shall not go beyond the quarantine premises, and shall not come in contact with any person not subj quarantine other than a health care provider, the Department or local health authority, or other person authority the Department or local health authority.	l ject to
This directive will be in effect until you are deemed non-contagious by the Department and therefore do not a substantial threat to the health of the public, or upon the expiration of the Directive or by court order. It is anticipated that you will need to be quarantined for at least to verify whether you have a contagious disease.	S
If you leave the place of quarantine designated above without the prior consent of the Department, action we taken as authorized under A.R.S. § 36-787 to have you taken into custody by law enforcement officials and returned to the place of quarantine.	
If you object to this order of quarantine or to the conditions of your quarantine, you may request a hearing superior court in accordance with A.R.S. §§ 36-789 (I) and (J). The court will then schedule a hearing. The request for a hearing does not suspend the effect of the Quarantine Directive.	
Any questions regarding this order may be directed to at (602)	
Notice was provided to the person or persons subject to this directive as follows:	
This directive was served in-hand to the above-named individual on at	

Appendix 4.1 Quarantine Directive for Public Health Emergencies A.R.S. \S 36-788 and 789

, Director rizona Department of Health Services	Date	_

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Appendix 4.2: Isolation Directive for Public Health Emergencies: A.R.S.§ 36-788 and 789

ISOLATION DIRECTIVE FOR PUBLIC HEALTH EMERGENCIES

(INDIVIDUAL OR MULTIPLE PERSONS/GROUPS)

To: Address:
The Governor of the State of Arizona has declared a State of Emergency or State of War Emergency that includes an occurrence or imminent threat of smallpox, plague, viral hemorrhagic fevers or a highly contagious and highly fatal disease with transmission characteristics similar to small pox.
The Arizona Department of Health Services ("the Department") has reason to suspect that you are infected with the contagious disease If you are in fact infected with this disease you pose a substantia threat to the health of other persons. Because any delay in implementing your isolation will pose an immediate and serious threat to the public health, the Department, in order to prevent transmission of this contagious disease, directs you to be placed in isolation in accordance with A.R.S. § 36-789(A). The time and location of the premises for your isolation are:
Time:
Location:
The Department considers this the least restrictive clinically appropriate place of isolation given the nature of the disease you are suspected of having. Within ten days after issuing this Directive, the Department shall file a petition for a court order authorizing the continued isolation of the person or persons named in this Directive. A court hearing will be set following the filing of the petition.
During this period you will be required to undergo a medical exam and may be ordered to receive medical treatment. A person subject to isolation shall comply with the Department's rules and orders, shall not go beyond the isolation premises, and shall not come in contact with any person not subject to isolation other than a health care provider, the Department or local health authority, or other person authorized by the Department or local health authority.
This directive will be in effect until you are deemed non-contagious by the Department and no longer pose a substantial threat to the health of the public, or upon expiration of this Directive or by court order. It is anticipated that you will nee to be isolated for at least to verify a diagnosis and render you non-contagious.
If you leave the place of isolation designated above without the prior consent of the Department, action will be taken as authorized under A.R.S. § 36-787 to have you taken into custody by law enforcement officials and returned to the place of isolation.
If you object to this isolation directive or to the conditions of your isolation, you may request a hearing in the superior court in accordance with A.R.S. § 36-789 (I) and (J). The court will then schedule a hearing. The request for a hearing does not suspend the effect of this Isolation Directive.
Any questions regarding this directive may be directed to at (602)
Notice was provided to the person or persons subject to this directive as follows: This directive was served in-hand to the above-named individual on at a.m./p.m
This directive applies to a group of persons for whom it is impractical to provide individual copies. A copy of this directive has been posted in a conspicuous place at:
Arizona Department of Health Services, Director Date

Appendix 4.3 Petition for Compulsory Isolation or Quarantine: A.R.S. § 36-789 (B)

1	TERRY GODDARD	
2	Attorney General Firm State Bar No. 14000	
3	Assistant Attorney General 1275 West Washington	
4	Phoenix, Arizona 85007 Telephone: (602)	
5	Fax: (602)	
6		
7	(10) (10)	RT OF ARIZONA
8		A COUNTY
9	STATE OF ARIZONA)	
11	Petitioner,	Case No.:
12	vs.	PETITION FOR COMPULSORY
13		ISOLATION OR QUARANTINE PURSUANT TO A.R.S. § 36-789(B)
14		(Oral Argument Requested)
15	Respondent.	(Oral Argument Requested)
16)	
17	The Arizona Department of Health So	ervices ("Department") petitions the Court
18	for an Order authorizing the initial or continu	ued isolation/quarantine of a person or group
19	of persons, pursuant to A.R.S.§ 36-789(B).	
20	The Governor of the State of Arizona	has declared a State of Emergency or State
21	of War Emergency that includes an occurren	
22		ous and highly fatal disease with transmission
23	characteristics similar to small pox. A copy of	
24	State of War Emergency is attached and inco	orporated herein as Exhibit A. Under
23		
	-	1-

1	Also attached to this petition as Exhibit B is a copy of an Affidavit of a
2	representative of the Department attesting to the facts asserted in this petition. If the
3	Department is seeking a court order authorizing the continued isolation or quarantine of
4	the Respondent(s), there is also attached, as Exhibit C, a copy of the Department's
5	written directive to isolate or quarantine the Respondent(s) named in this petition.
6	Conclusion.
7	The Department requests the issuance of a court order authorizing the isolation or
8	quarantine of the Respondent(s) in order to prevent transmission of a highly contagious
9	and deadly disease.
10	DATED this day of,
11	TERRY GODDARD ATTORNEY GENERAL
12	ATTORNET GENERAL
13	 ,
14	(name)
15	Assistant Attorney General 1275 West Washington
16	Phoenix, Arizona 85007 Telephone: (602)
17	Fax: (602)
18	Original filed with:
19	Clerk of the Superior Court
20	Maricopa County Superior Court 201 W. Jefferson
21	Phoenix, Arizona 85003-2205
22	Copy hand delivered to:
23	Honorable
24	Maricopa County Superior Court 201 W. Jefferson
25	Phoenix, Arizona 85003-2205
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Appendix 4.4 Affidavit in Support of Compulsory Isolation or Quarantine: A.R.S. § 36-789 (C)

1	<u>AFFIDAVIT</u>
2 STA	ATE OF ARIZONA)
3) ss. inty of Maricopa)
4	
5	, being first duly sworn upon his oath, deposes and says: 1. That I am the State Epidemiologist or designee of the Arizona Department
6 of L	
7	Health Services and I am authorized to execute this affidavit in support of the Petition
8	Compulsory Isolation or Quarantine on behalf of the Department. 2. That I have read the Petition for Compulsory Isolation or Quarantine
9	2. That I have read the Petition for Compulsory Isolation or Quarantine suant to A.R.S. § 36-789(B) and know the contents thereof.
10	3. That the facts asserted in the Petition are true to the best of my knowledge
11	ept to those matters stated therein upon information and belief and as to those matters,
12	elieve them to be true, specifically:
13	
14	
15	quarantine;
16	b. The premises subject to isolation or quarantine;
7	c. The date and time at which isolation or quarantine commences;
8	d. The suspected contagious disease;
19	e. The compliance of the Department with the conditions and
20	principles for isolation and quarantine; and
21	f. The basis on which isolation or quarantine is justified pursuant to
22	A.R.S. Title 36, Chapter 6, Article 9.
23	4. (OPTIONAL PARAGRAPH) The following additional information is
24	relevant for the Court's consideration:
25	

1	Dated:
2	
3	
4	(name)
5	State Epidemiologist or Designee
6	SUBSCRIBED AND SWORN to before me this day of, 200
7	
8	
9	NOTARY PUBLIC
10	My Commission Expires:
11	My Commission Expires.
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25	# 463802
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	2

Appendix 4.5 Order for Isolation or Quarantine: A.R.S. § 36-789 (B), (F), (G)

1	TERRY GODDARD	
2	Attorney General Firm State Bar No. 14000	
3	Assistant Attorney General	
4	1275 West Washington Phoenix, Arizona 85007	
5	Telephone: (602) Fax: (602) State Bar No	
6	State Dai No	
7	SUPERIOR COU	RT OF ARIZONA
8	MARICOP	A COUNTY
9	STATE OF ARIZONA	
10	{	
11	Petitioner,	Case No.:
12	vs.	ORDER FOR ISOLATION OR
13	ĺ	QUARANTINE PURSUANT TO A.R.S. § 36-789(G)
14	(
15	Respondent.	
16		
17	A Petition having been filed by the A	rizona Department of Health Services
18	("Department") for an Order authorizing the	initial or continued isolation/quarantine of a
19	person or group of persons pursuant to A.R.S	S.§ 36-789(B); and the matter having come
20	before this Court for hearing; and the Court	having considered the Petition and attached
21	exhibits, the testimony of the parties and wit	nesses, and after due consideration of this
22	matter;	
23	I make the following findings that wa	rrant the ordering of isolation or quarantine
24	pursuant to A.R.S. Title 36, Chapter 6, Artic	le 9:
25		
		1-

1. The Governor of the State of Arizona has declared a State of Emergency or State of War Emergency that includes an occurrence or imminent threat of smallpox, plague, viral hemorrhagic fevers or a highly contagious and highly fatal disease with transmission characteristics similar to smallpox and issued an order under A.R.S. § 36-787(C)(2) to isolate and quarantine persons.

3.

(<u>If seeking a quarantine order</u>, the following information must be provided in this section:

What is the reasonable basis for the Department's conclusion as to how the Respondent(s) have been exposed to this highly contagious disease, why the disease poses a serious threat to public health, why quarantine and the conditions of the quarantine are the least restrictive means by which the public can be protected from transmission of the disease, and any details of the refusal of the Respondent(s) to accept less restrictive measures.)

(<u>If seeking an isolation order</u>, the following information must be provided in this section:

What is the reasonable basis for the Department's conclusion that the Respondent(s) have contracted one of the enumerated highly contagious diseases, why the disease poses a serious threat to public health, why isolation and the conditions of this isolation are the least restrictive means by which the public can be protected from transmission of the disease, and any details of the refusal of the Respondent(s) to accept less restrictive measures.)

IT IS HEREBY ORDERED THAT:

- 1. The Department has met the requirements for the issuance of this Order;
- 2. The Department has shown by a preponderance of the evidence that isolation or quarantine is reasonably necessary to protect the public health;
- 3. The following person or group of persons shall be isolated or quarantined beginning at (date and time), at (location):

Identify the isolated or quarantined person or group of persons by name or shared or similar characteristics or circumstances)

1	The isolation or quarantine shall be effected with the following conditions
2	necessary to ensure that the isolation or quarantine is carried out within the stated
3	purposes and restrictions of A.R.S. Title 36, Chapter 6, Article 9:
4	
5	 This Order shall be served on the above-named person or group of persons
6	in accordance with the Arizona Rules of Civil Procedure.
7	IT IS FURTHER ORDERED THAT this Order shall expire 30 days from the date
8	of its issuance unless the Department is granted continuance of this Order under A.R.S.
9	§36-789(H).
10	DATED this day of,
11	
12	
13	Honorable (name)
14	
15	
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25	

412053

Appendix 4.6 Verification of Petition for Compulsory Isolation or Quarantine: A.R.S.§ 36-789 (B)

1	VERIFICATION
2	STATE OF ARIZONA) ss.
3	County of Maricopa)
4	, being first duly swom upon her oath, deposes and says:
5	That I am the Director or Deputy Director of the Arizona Department of
6	Health Services and I am authorized to verify the Complaint on behalf of the Department.
7	That I have read the Petition for Compulsory Isolation and Quarantine and
8	the Affidavit in support of it prepared by the State Epidemiologist or his designee, and
9	know the contents thereof.
0	3. That the facts contained in the Petition and the supporting Affidavit of the
1	State Epidemiologist or his designee are true to the best of my knowledge except to those
2	matters stated therein upon information and belief, and as to those matters, I believe them
3	to be true.
4	
5	
6	(name)
7	Director/Deputy Director
8	SUBSCRIBED AND SWORN to before me this day of, 200
9	
0.	
21	NOTARY PUBLIC
2	My Commission Expires:
3	My Commission Expires:
4	
5	
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APPENDIX 5. FREQUENTLY ASKED QUESTIONS ABOUT QUARANTINE

If an influenza pandemic occurs, will my community be quarantined?

Community-wide quarantine is only one of a spectrum of actions that may be considered during an influenza pandemic in the United States. Although rapid control is likely to require bold and swift action, measures that are less drastic than legally enforced quarantine may suffice, depending on the epidemiologic characteristics of the pandemic. For example, active monitoring without activity restrictions may be adequate when most cases are either imported or have clear epidemiologic linkages at the time of initial evaluation. When the epidemiology of the outbreak indicates a need for stronger measures, jurisdictions can adopt a voluntary quarantine approach and reserve compulsory measures for only extreme situations. When an outbreak progresses to include large numbers of cases for which no epidemiologic linkages can be identified, community-level interventions may become necessary. Even at this stage, however, measures designed to increase social distance, such as "Stay Home Days", may be preferred alternatives to quarantine. Wider use of quarantine is generally reserved for situations in which all other control measures are believed to be ineffective.

The choice of containment measures requires frequent and ongoing assessment of an outbreak and evaluation of the effectiveness of existing control measures. Officials must be prepared to make decisions based on limited information and then modify those decisions as additional information becomes available.

Does the effectiveness of containment measures require 100% compliance?

No. Containment measures, including quarantine, are effective even if compliance is less than 100%. Although health officials should strive for high compliance, even partial or "leaky" quarantine can reduce transmission. Therefore, strict enforcement is not always needed; in most cases, jurisdictions can rely on voluntary cooperation. The incremental benefit of quarantine approaches a maximum at a compliance rate of approximately 90%, with little additional benefit from higher rates of compliance. Therefore, containment measures can be important components of the response to a communicable disease outbreak even when compliance is not 100%.

Does "quarantine" always mean using a legal order to restrict someone's activity?

No. The term "quarantine" is often defined narrowly to refer to the legally mandated separation of well persons who have been exposed to a communicable disease from those who have not been exposed. Although the precise legal definition of quarantine may differ from jurisdiction to jurisdiction, when used clinically or programmatically, quarantine may be defined more broadly to include all interventions, both mandatory and voluntary, that restrict the activities of persons exposed to a communicable disease. Therefore, whenever an exposed person is placed under a regimen of monitoring that includes an activity restriction, even when those restrictions are voluntary, the person is said to be under quarantine.

Must quarantine be mandatory to be effective?

Although the federal government and nearly all states have the basic legal authority to place persons exposed to certain communicable diseases under quarantine and enforce the required restrictions on activity, use of this authority may not always be necessary or practical. Previous experiences with the use of quarantine, including those during the 2003 SARS outbreak, suggest that the majority of persons comply voluntarily with requests from health authorities to remain in quarantine and observe the recommended activity restrictions. In the event voluntary measures are not successful, it may be necessary to implement mandatory containment measures.

Does being placed in quarantine increase a person's risk for acquiring disease?

One of the fundamental principles of modern quarantine is that persons in quarantine are to be closely monitored so that those who become ill are efficiently separated from those who are well. A second principle is that persons in quarantine should be among the very first to receive any available disease-prevention interventions. Adherence to these two principles of modern quarantine should prevent an increase in risk for acquiring disease while in quarantine.

Is quarantine really necessary if everyone who develops symptoms is rapidly placed in isolation?

Although theoretically true, it would be unrealistic to believe that even the most efficient system for initiation of isolation will minimize delays to the extent required to prevent transmission. Among the factors contributing to delays in recognition of symptoms are the insidious nature of disease onset and denial that symptoms have developed.

Quarantine helps to reduce transmission associated with delays in isolation in two ways. First, quarantine enables health officials to quickly locate symptomatic persons who should be placed in isolation. Second, although quarantine locations may not be as efficient as isolation facilities in preventing transmission, quarantine reduces the number of persons who might be exposed while awaiting transfer to an isolation facility. If quarantine was not used, symptomatic and infectious persons could move about freely in public places, potentially exposing large numbers of additional persons and thereby fueling the outbreak.

Is quarantine useful only for diseases that are spread by the airborne route?

No. Quarantine simply refers to the separation and restriction of activity of persons exposed to a communicable disease who are not ill. It is designed to minimize interactions between those exposed to a disease and those not yet exposed. As such, quarantine can be used for any disease that is spread from person to person. In practice, however, because of the activity restrictions associated with quarantine, the intervention is generally reserved for diseases like SARS or pandemic influenza that are easily and rapidly spread from person to person. However, this tool can also be useful where transmission can occur through close personal contact with secretions or objects contaminated by an ill person. Smallpox is an excellent example of a disease where quarantine can be effective in controlling spread although transmission may occur by means other than the airborne route.

Will the public accept the use of quarantine?

Yes. The negative connotations associated with quarantine likely stem from its misuse or abuse in the past. Although inappropriate use of quarantine, either voluntary or mandatory, would not and should not be accepted by the public, efforts should be made to gain public acceptance when use of this measure is indicated. Experiences with the use of quarantine during the SARS outbreaks of 2003 suggest that public acceptance of quarantine may be greater than previously thought. For example, during the 2003 SARS outbreak in Canada, almost all persons asked to observe quarantine restrictions did so willingly, with only a small number requiring a legal order to gain cooperation. In all cases, cooperation and acceptance was achieved through clear and comprehensive communication with the public about the rationale for use of quarantine.

APPENDIX 6.

RECOMMENDATIONS FOR QUARANTINE

(Note: Recommendations on patient isolation are provided in **Supplement 3.**)

General considerations

- Monitor each quarantined person daily, or more frequently if feasible, for fever, respiratory symptoms, and other symptoms of early influenza disease.
- Monitor compliance with quarantine through daily visits or telephone calls.
- Provide a hotline number for quarantined persons to call if they develop symptoms or have other immediate needs.
- If a quarantined person develops symptoms suggestive of influenza, arrangements should be in place for separating that person from others in quarantine and ensuring immediate medical evaluation.
- Provide persons in quarantine with all needed support services, including 1) psychological support, 2) food and water, 3) household and medical supplies, and 4) care for family members who are not in quarantine. Financial issues, such as medical leave, may also need to be considered.
- Collect data related to quarantine activities to guide ongoing decision-making including information on each person quarantined:
 - Relationship to the case-patient
 - Nature and time of exposure
 - Whether the contact was vaccinated, on antiviral prophylaxis or using PPE
 - Underlying medical conditions
 - Number of days in quarantine
 - Symptom log
 - Basic demographics
 - Compliance with quarantine

Based on current available data, the recommended duration of quarantine for influenza is generally **10 days** from the time of exposure. (This period may be adjusted based on available information during a pandemic.) At the end of the designated quarantine period, contacts should have a final assessment for fever and respiratory symptoms. Persons without fever or respiratory symptoms may return to normal activities.

Home quarantine

Whenever possible, contacts should be quarantined at home. Home quarantine requires the fewest additional resources, although arrangements must still be made for monitoring patients, reporting symptoms, transporting patients for medical evaluation if necessary, and providing essential supplies and services. Home quarantine is most suitable for contacts with a home environment that can meet their basic needs and in which unexposed household members can be protected from exposure. Other considerations include:

- Persons in home quarantine must be able to monitor their own symptoms (or have them monitored by a caregiver).
- The person's home should be evaluated for suitability before being used for quarantine,

- using a questionnaire administered to the quarantined person or the caregiver. Additional guidance on use of a residence for quarantine is provided in Appendix 7.
- Quarantined persons should minimize interactions with other household members to prevent exposure during the interval between the development and recognition of symptoms. Precautions may include 1) sleeping and eating in a separate room, 2) using a separate bathroom, and 3) appropriate use of personal protective equipment (see **Supplement 4**).
- Persons in quarantine may be assessed for symptoms by either active or passive monitoring. Active monitoring of contacts in quarantine may overcome delays resulting from the insidious onset of symptoms or denial among those in quarantine.
- Household members may go to school, work, etc., without restrictions unless the quarantined person develops symptoms. If the quarantined person develops symptoms, household members should remain at home in a room separate from the symptomatic person and await additional instructions from health authorities.
- Household members can provide valuable support to quarantined persons by helping them feel less isolated and ensuring that essential needs are met.
- Immediate and ongoing psychological support services should be provided to minimize psychological distress.
- Quarantined persons should be able to maintain regular communication with their loved ones and healthcare providers.

Quarantine in designated facilities

In some cases, affected persons may not have access to an appropriate home environment for quarantine. Examples include travelers; persons living in dormitories, homeless shelters, or other group facilities; and persons whose homes do not meet the minimum requirements for quarantine. In other instances, contacts may have an appropriate home environment but may not wish to put family members at risk. In these situations, health officials should identify an appropriate community-based quarantine facility. Monitoring of quarantined persons may be either passive or active, although active monitoring may be more appropriate in a facility setting. Facilities designated for quarantine of persons who cannot or choose not to be quarantined at home should meet the same criteria listed for home quarantine. Evaluation of potential sites for facility-based quarantine is an important part of preparedness planning (see Appendix 7).

Working quarantine

This type of quarantine applies to healthcare workers or other essential personnel who are at occupational risk of influenza infection. These groups may be subject to quarantine either at home or in a designated facility during off-duty hours. When off duty, contacts on working quarantine should be managed in the same way as persons in quarantine at home or in a designated facility. Local officials should:

- Monitor persons in working quarantine for symptoms during work shifts
- Promptly evaluate anyone who develops symptoms
- Provide transportation to and from work, if needed
- Develop mechanisms for immediate and ongoing psychological support

At the end of the designated quarantine period, contacts should receive physical (fever and respiratory symptoms) and psychological health assessments. Persons without fever or respiratory symptoms may return to normal activities. Persons who exhibit psychological distress should be referred to mental health professionals for additional support services.

APPENDIX 7.

EVALUATION OF HOMES AND FACILITIES FOR ISOLATION AND QUARANTINE ISOLATION FACILITIES

Home isolation

Ideally, persons who meet the criteria for a case of pandemic influenza and who do not require hospitalization for medical reasons should be isolated in their homes. The home environment is less disruptive to the patient's routine than isolation in a hospital or other community setting.

If feasible—especially during the earliest stages of a pandemic—a home being considered as an isolation setting should be evaluated by an appropriate authority, which could be the patient's physician, health department official, or other appropriate person to verify its suitability. The assessment should center on the following minimum standards for home isolation of an influenza patient:

Infrastructure

- Functioning telephone
- Electricity
- Heating, ventilation, and air conditioning (HVAC)
- Potable water
- Bathroom with commode and sink
- Waste and sewage disposal (septic tank, community sewage line)

Accommodations

- Ability to provide a separate bedroom for the influenza patient
- Accessible bathroom in the residence; if multiple bathrooms are available, one bathroom designated for use by the influenza patient

Resources for patient care and support

- Primary caregiver who will remain in the residence and who is not at high risk for complications from influenza disease
- Meal preparation
- Laundry
- Banking
- Essential shopping
- Social diversion (e.g., television, radio, Internet access, reading materials)
- Masks, tissues, hand hygiene products, and information on infection control procedures
- Educational material on proper waste disposal

Isolation in a community-based facility

When persons requiring isolation cannot be accommodated either at home or in a healthcare facility, a community-based isolation facility will be required. The availability of a community-based facility will be particularly important during a large outbreak (See also http://www.ahrq.gov/research/altsites.htm).

Much of the work in identifying and evaluating potential sites for isolation should be conducted in advance of an outbreak as part of preparedness planning. Each jurisdiction should assemble a team (including infection control specialists, public health authorities, engineers, sanitation experts, and mental health specialists) to identify appropriate locations and resources for community influenza isolation facilities, establish procedures for activating them, and coordinate activities related to patient management. The team should consider the use of both existing and temporary structures. Options for existing structures include community health centers, nursing homes, apartments, schools, dormitories, and hotels. Options for temporary structures include trailers, barracks, and tents. Considerations include:

Basic infrastructure requirements

- Meets all local code requirements for a public facility
- Functioning telephone system
- Electricity
- Heating, ventilating, and air conditioning (HVAC)
- Potable water
- Bathroom with commode and sink
- Waste and sewage disposal (septic tank, community sewage line)
- Multiple rooms for housing ill patients (individual rooms are preferred)

Access considerations

- Proximity to hospital
- Parking space
- Ease of access for delivery of food and medical and other supplies
- Handicap accessibility
- Basic security

Space requirements

- Administrative offices
- Offices/areas for clinical staff
- Holding area for contaminated waste and laundry
- Laundry facilities (on- or off-site)
- Meal preparation (on- or off-site)

Social support resources

- Television and radio
- Reading materials

To determine priorities among available facilities, consider these features:

- Separate rooms for patients or areas amenable to isolation of patients with minimal construction
- Feasibility of controlling access to the facility and to each room
- Availability of potable water, bathroom, and shower facilities
- Facilities for patient evaluation, treatment, and monitoring
- Capacity for providing basic needs to patients
- Rooms and corridors that are amenable to disinfection
- Facilities for accommodating staff
- Facilities for collecting, disinfecting, and disposing of infectious waste
- Facilities for collecting and laundering infectious linens and clothing
- Ease of access for delivery of patients and supplies
- Legal/property considerations

Additional considerations include:

- Staffing and administrative support
- Training
- Ventilation and other engineering controls
- Ability to support appropriate infection control measures
- Availability of food services and supplies
- Ability to provide an environment that supports the social and psychological well-being of patients
- · Security and access control
- Ability to support appropriate medical care, including emergency procedures
- Access to communication systems that allow for dependable communication within and outside the facility
- Ability to adequately monitor the health status of facility staff

QUARANTINE FACILITIES

Home quarantine

A person's residence is generally the preferred setting for quarantine. As with isolation, home quarantine is often least disruptive to a person's routine. Because persons who have been exposed to influenza may need to stay in quarantine for as long as 10 days (may be modified based on information about the virus), it is important to ensure that the home environment meets the individual's ongoing physical, mental, and medical needs. An evaluation of the home for its suitability for quarantine should be performed, ideally before the person is placed in quarantine. This evaluation may be performed on site by a health official or designee. However, from a practical standpoint, it may be more convenient to evaluate the residence through the administration of a questionnaire to the individual and/or the caregiver. Factors to be considered in the evaluation include:

- Basic utilities (water, electricity, garbage collection, and heating or air-conditioning as appropriate)
- Basic supplies (clothing, food, hand-hygiene supplies, laundry services)

- Mechanism for addressing special needs (e.g., filling prescriptions)
- Mechanism for communication, including telephone (for monitoring by health staff, reporting of symptoms, gaining access to support services, and communicating with family)
- Accessibility to healthcare workers or ambulance personnel
- Access to food and food preparation
- Access to supplies such as thermometers, fever logs, phone numbers for reporting symptoms or accessing services, and emergency numbers (these can be supplied by health authorities if necessary)
- Access to mental health and other psychological support services.

Quarantine in a community-based facility

Although the home is generally the preferred setting for quarantine, alternative sites for quarantine may be necessary in certain situations. For example, persons who do not have a home situation suitable for this purpose or those who require quarantine away from home (e.g., during travel) will need to be housed in an alternative location. Because persons who have been exposed to influenza may require quarantine for as long as 10 days, it is important to ensure that the environment is conducive to meeting the individual's ongoing physical, mental, and medical needs. Ideally, one or more community-based facilities that could be used for quarantine should be identified and evaluated as part of influenza preparedness planning. The evaluation should be performed on site by a public health official or designee. Additional considerations, beyond those listed above for home quarantine, include:

- Adequate rooms and bathrooms for each contact
- Delivery systems for food and other needs
- Staff to monitor contacts at least daily for fever and respiratory symptoms
- Transportation for medical evaluation for persons who develop symptoms
- Mechanisms for communication, including telephone (for monitoring by health staff, reporting symptoms, gaining access to support services, and communicating with family)
- Adequate security for those in the facility

Services for removal of waste. No special precautions for removal of waste are required as long as persons remain asymptomatic.